



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,787	06/27/2003	Takashi Honda	239689US3X	6368
22850	7590	03/16/2005		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER RENNER, CRAIG A	
			ART UNIT	PAPER NUMBER
			2652	

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/606,787

Applicant(s)

HONDA ET AL. *AK*

Examiner

Craig A. Renner

Art Unit

2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/27/03 & 1/6/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings are objected to because of the following informalities:
 - a. The drawings fail to comply with 37 CFR 1.83(a) because they do not show every feature of the invention specified in the claims. Note, for instance, that the "electrically conductive coating," set forth in each of claims 6, 13, 20 and 27, is not shown in the drawings.
 - b. The drawings fail to comply with 37 CFR 1.84(p)(5) because they include one or more reference signs not mentioned in the description. Note, for instance, "32" (shown twice in FIG. 1, for instance) and "66" (shown in FIG. 10, for instance) are not mentioned in the description.
 - c. In FIG. 15, reference sign "9" should be changed to --8-- in order to be consistent with the remainder of the disclosure.
 - d. FIGS. 15 and 16 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Corrected drawing sheets in compliance with 37 CFR 1.121(d), an amendment to the specification in compliance with 37 CFR 1.121(b), and/or an amendment to the

Art Unit: 2652

claims in compliance with 37 CFR 1.121(c) are required in reply to the Office action to avoid abandonment of the application. No new matter should be entered. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 2652

6. Claims 8-28 and 30-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. In lines 14-16 of claim 8, lines 17-19 of claim 15, and lines 19-21 of claim 22, it is indefinite as to which element has the "center of mass" with which the projecting portion coincides.

b. Claims 9-14, 16-21, 23-28, and 30-32 inherit the indefiniteness associated with their respective base claims and stand rejected as well.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 7-8, 14-15, 21-22, and 28-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Kuwajima et al. (US 6,751,064).

With respect to claims 1, 7, and 29, Kuwajima et al. (US 6,751,064) teaches a magnetic head apparatus comprising a load beam (2) to which a floating type slider (1) is attached; an elastically deformable portion (4) provided on the load beam, so that a

Art Unit: 2652

floating structure that allows the load beam to swing is formed about the elastically deformable portion (as shown in FIG. 1, for instance); and a load generating portion (includes 11a and/or 11b, for instance); wherein a position of the load generating portion is adapted to coincide with a center of mass (P) of the load beam (as shown in FIGS. 4-5, for instance); and a pressing load of the slider against a recording medium (12) is set by a pressure generated at the load generating portion (line 66 in column 8 through line 25 in column 9, for instance) [as per claim 1]; wherein the magnetic head apparatus further comprises a head arm (8, for instance) that is supported in such a way as to be pivotable to move in a radial direction of the recording medium, the head arm has a strengthen plate (26, for instance) that is attached to the head arm perpendicularly in such a way that it would not interfere with the recording medium [as per claim 7]; and wherein the magnetic head apparatus is a component of a magnetic recording apparatus (23) [as per claim 29].

With respect to claims 8, 14, and 30, Kuwajima et al. (US 6,751,064) teaches a magnetic head apparatus comprising a load beam (2) to which a floating type slider (1) is attached; an elastically deformable portion (4) provided on the load beam, so that a floating structure that allows the load beam to swing is formed about the elastically deformable portion (as shown in FIG. 1, for instance); a projecting portion (includes 11a and/or 11b, for instance) for generating a load disposed in the vicinity of the elastically deformable portion of the load beam; and a pressure receiving surface (includes Pa and/or Pb, for instance) provided on the load beam for receiving a pressure from the projecting portion; wherein a position of the projecting portion is adapted to coincide

Art Unit: 2652

with a center of mass (P) (as shown in FIGS. 4-5, for instance); and a pressing load of the slider against a recording medium (12) is set by a pressure applied to the pressure receiving surface (line 66 in column 8 through line 25 in column 9, for instance) [as per claim 8]; wherein the magnetic head apparatus further comprises a head arm (8, for instance) that is supported in such a way as to be pivotable to move in a radial direction of the recording medium, the head arm has a strengthen plate (26, for instance) that is attached to the head arm perpendicularly in such a way that it would not interfere with the recording medium [as per claim 14]; and wherein the magnetic head apparatus is a component of a magnetic recording apparatus (23) [as per claim 30].

With respect to claims 15, 21, and 31, Kuwajima et al. (US 6,751,064) teaches a magnetic head apparatus comprising a base plate (11); a load beam (2) that extends from the base plate; a floating type slider (1) attached to the load beam; an elastically deformable portion (4) provided between the base plate and the load beam (as shown in FIG. 1, for instance), so that a floating structure that allows the load beam to swing is formed about the elastically deformable portion (as shown in FIG. 1, for instance); a projecting portion (includes 11a and/or 11b, for instance) for generating a load disposed in the vicinity of the elastically deformable portion of the load beam; a pressure receiving surface (includes Pa and/or Pb, for instance) provided on the load beam; wherein a position of the projecting portion is adapted to coincide with a center of mass (P) (as shown in FIGS. 4-5, for instance); a pressing load is applied to a surface of a recording medium (12) via the floating type slider (line 66 in column 8 through line 25 in column 9, for instance); and a pressing load of the slider against the recording medium

Art Unit: 2652

is set by a pressure applied to the pressure receiving surface (line 66 in column 8 through line 25 in column 9, for instance) [as per claim 15]; wherein the magnetic head apparatus further comprises a head arm (8, for instance) that is supported in such a way as to be pivotable to move in a radial direction of the recording medium, the head arm has a strengthen plate (26, for instance) that is attached to the head arm perpendicularly in such a way that it would not interfere with the recording medium [as per claim 21]; and wherein the magnetic head apparatus is a component of a magnetic recording apparatus (23) [as per claim 31].

With respect to claims 22, 28, and 32, Kuwajima et al. (US 6,751,064) teaches a magnetic head supporting mechanism comprising a magnetic head apparatus (9) including a base plate (5) and a load beam (2) extending from the base plate; a head arm (includes 11, for instance) attached (albeit indirectly) to the base plate; a floating type slider (1) attached to the load beam; an elastically deformable portion (4) provided between the base plate and the load beam (as shown in FIG. 5, for instance) so that a floating structure that allows the load beam to swing is formed about the elastically deformable portion (as shown in FIG. 1, for instance); a projecting portion (includes 11a and/or 11b, for instance) for generating a load disposed in the vicinity of the elastically deformable portion of the load beam, the projecting portion for generating a load being provided on the head arm (as shown in FIG. 1, for instance) and being adapted to apply a pressure to the load beam (as shown in FIG. 1, for instance); wherein a position of the projecting portion is adapted to coincide with a center of mass (P) (as shown in FIGS. 4-5, for instance); a pressing load is applied to a recording medium (12) via the floating

Art Unit: 2652

type slider (line 66 in column 8 through line 25 in column 9, for instance); and the pressing load to the recording medium is set by an amount of rotation of the load beam caused by the pressure applied by the projecting portion (line 66 in column 8 through line 25 in column 9, for instance) [as per claim 22]; wherein the head arm is supported in such a way as to be pivotable to move in a radial direction of the recording medium, the head arm has a strengthen plate (10, for instance) that is attached to the head arm perpendicularly in such a way that it would not interfere with the recording medium [as per claim 28]; and wherein the magnetic head apparatus is a component of a magnetic recording apparatus (23) [as per claim 32].

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 2652

11. Claims 4-6, 11-13, 18-20, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuwajima et al. (US 6,751,064).

Kuwajima et al. (US 6,751,064) teaches the magnetic head apparatus as detailed in paragraph 8, supra. Kuwajima et al. (US 6,751,064), however, remains silent as to the load beam being made of an “electrically conductive resin”, as per claims 4-5, 11-12, 18-19, and 25-26, or an “electrically conductive coating... formed on... resin” as per claims 4, 6, 11, 13, 18, 20, 25, and 27.

Official notice is taken of the fact that each of an electrically conductive resin and an electrically conductive coating formed on resin is a notoriously old and well known load beam material in the same field of endeavor for the purpose of inhibiting electrostatic discharge. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have had the load beam of Kuwajima et al. (US 6,751,064) be made of an electrically conductive resin, or an electrically conductive coating formed on resin. The rationale is as follows:

One of ordinary skill in the art would have been motivated to have had the load beam of Kuwajima et al. (US 6,751,064) be made of an electrically conductive resin, or an electrically conductive coating formed on resin since each is a notoriously old and well known load beam material in the same field of endeavor for the purpose of inhibiting electrostatic discharge, and since selecting a known material on the basis of its suitability for the intended use is within the level of ordinary skill in the art, *In re Leshin*, 125 USPQ 416 (CCPA 1960).

Art Unit: 2652

12. Claims 2-3, 9-10, 16-17, and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuwajima et al. (US 6,751,064) in view of Sato (JP 09-082052).

Kuwajima et al. (US 6,751,064) teaches the magnetic head apparatus as detailed in paragraph 8, *supra*. Kuwajima et al. (US 6,751,064), however, remains silent as to the magnetic head apparatus further comprising a "dead weight made of a vibration damping member" as per claims 2, 9, 16, and 23; and wherein the dead weight is made of "resin" as per claims 3, 10, 17, and 24.

Sato (JP 09-082052) teaches a magnetic head apparatus further comprising a dead weight (7, for instance) made of a vibration damping member (lines 1-3 of the PROBLEM, for instance) in the same field of endeavor for the purpose of preventing head damage by easing head shocks. Official notice is taken of the fact that resin is a notoriously old and well known dead weight material in the art. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have had the magnetic head apparatus of Kuwajima et al. (US 6,751,064) further comprise a dead weight made of a vibration damping member as taught by Sato (JP 09-082052), and to have had the dead weight of Kuwajima et al. (US 6,751,064) in view of Sato (JP 09-082052) be made of resin. The rationale is as follows:

One of ordinary skill in the art would have been motivated to have had the magnetic head apparatus of Kuwajima et al. (US 6,751,064) further comprise a dead weight made of a vibration damping member as taught by Sato (JP 09-082052) since such prevents head damage by easing head shocks.

Art Unit: 2652

One of ordinary skill in the art would have been motivated to have had the dead weight of Kuwajima et al. (US 6,751,064) in view of Sato (JP 09-082052) be made of resin since such is a notoriously old and well known dead weight material in the art, and since selecting a known material on the basis of its suitability for the intended use is within the level of ordinary skill in the art. See *In re Leshin*, supra.

Pertinent Prior Art

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. This includes Owe et al. (US 5,012,369), Itoh et al. (US 5,255,135), Kozaki (US 5,477,404), and Kuwajima et al. (US 6,826,018), which each individually teaches a magnetic head supporting mechanism with a load generating projection portion deforming a load beam about an elastically deformable portion to bring a slider into contact with a recording medium; and Berding (US 5,936,803), which teaches a magnetic head supporting mechanism with a load beam thereof balanced by a dead weight.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig A. Renner whose telephone number is (571) 272-7580. The examiner can normally be reached on Tuesday-Friday 9:00 AM - 7:30 PM.

Art Unit: 2652

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Craig A. Renner
Primary Examiner
Art Unit 2652

CAR